

Listing of Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Please amend claims 42-53 as shown below.

Claims 1-41. (Cancelled)

42. (Currently amended) A method for controlling access links between a mobile station and a network, comprising:

transmitting, by the mobile station, a notification to the network, the notification including information that the mobile station is capable of performing diversity handover;

detecting, by the network, a call attempt to or from the mobile station;

establishing a plurality of branches between the network and the mobile station, the establishment being triggered by the call, the plurality of branches being determined on the basis of the notification; and

commencing communication between the mobile station and the network, the communication using diversity handover with the plurality of branches

~~characterized in that a plurality of branches are established between the network and the mobile station upon a call attempt to or from the mobile station when the mobile station is located at a position where it can communicate using diversity handover, the plurality of branches including a main branch and at least one auxiliary branch for additional use in order that the mobile station may communicate using diversity handover, thereby enabling the mobile station to commence communication using the plurality of branches.~~

43. (Currently amended) A method according to claim 42, wherein the plurality of branches are formed between the network and the mobile station via a single base station, thereby enabling the mobile station to commence communication using the plurality of branches.

44. (Currently amended) A method according to claim 42, wherein the plurality of branches are formed between the network and the mobile station via a plurality of base stations, thereby enabling the mobile station to commence communication using the plurality of branches.

45. (Currently amended) A method according to claim 42, further comprising:
measuring, by the mobile station, the levels of reception from circumferential base
stations; and
selecting, by the mobile station, candidate zones for the diversity handover on the basis of
the measurement;

wherein the notification includes information of the candidate zone
~~wherein the mobile station measures the levels of receptions from surrounding base~~
~~stations, selects candidate zones for the diversity handover on the basis of the measurement, and~~
~~notifies the network about the candidate zones, and the network selects the branches in light of~~
~~the notification from the mobile station.~~

46. (Currently amended) A method according to claim 42, further comprising:
transmitting, by the network, a message to the mobile station, the message including a
request to establish the plurality of branches; and
commencing, by the network, the diversity handover for communicating with the mobile
station

~~wherein the network transmits a message, including a request to establish the branches, to~~
~~the mobile station and commences communication with the mobile station using the plurality of~~
~~branches.~~

47. (Currently amended) A mobile station, comprising:
a receiver that is adapted to receive a message from a network;
an access link controller that is adapted to establish a plurality of branches between the
network and the mobile station when no access link is established between the network and the
mobile station, and when the receiver receives a message, the message including a request for
establishing the plurality of branches; and

a communication controller that is adapted to commence communication using the plurality of branches with the diversity of handover

~~characterized in that it establishes a plurality of branches directly between one or more base stations of a network and the mobile station upon receiving a message from the network when no access link is established between the network and the mobile station, the message including a request for establishing the branches, thereby commencing communication using the plurality of branches.~~

48. (Currently amended) A mobile station according to claim 47, wherein if the request includes an instruction to establish the plurality of branches between the mobile station and a single base station, the mobile station establishes the requested branches between the mobile station and the single base station, thereby commencing communication using the plurality of branches.

49. (Currently amended) A mobile station according to claim 47, wherein if the request includes a request to establish the plurality of branches between the mobile station and a plurality of base stations, the mobile station establishes the requested branches between the mobile station and the base stations, thereby commencing communication using the plurality of branches.

50. (Currently amended) A base station controller for controlling a base station in a network, comprising:

a receiver that is adapted to receive a notification from a mobile station, the notification including information indicating that the mobile station is capable of performing diversity handover;

a detector that is adapted to detect a call attempt to or from the mobile station;

an access link controller that is adapted to establish a plurality of branches between the network and the mobile station when the detector detects a call attempt to or from the mobile station, and when the receiver receives the notification, the plurality of branches being used for diversity handover; and

a communication controller that is adapted to control the base station to perform communication with the mobile station, the communication using diversity handover

~~characterized in that it establishes, when a mobile station is at a location where it can communicate using diversity handover a plurality of branches between a network and the mobile station upon a call attempt to or from the mobile station, the plurality of branches including a main branch and at least one auxiliary branch for additional use in order that the mobile station may communicate using diversity handover.~~

51. (Currently amended) A base station controller according to claim 50, further comprising:

a transmitter that is adapted to transmit a message to both of the base station and the mobile station when the detector detects a call attempt to or from the mobile station, and when the receiver receives the notification, the message including a request for establishing the plurality of branches;

wherein the communication controller performs communication using the intra-cell diversity handover

~~characterized in that, when a mobile station is at a location where it can communicate using diversity handover, the base station controller transmits a message to both of a base station and a mobile station upon a call attempt to or from the mobile station, wherein the mobile station and the base station communicate with each other using a plurality of branches, the message including a request for establishing a plurality of branches between the base station and the mobile station including a main branch and at least one auxiliary branch for additional use in order that the mobile station may communicate by means of intra-cell diversity handover.~~

52. (Currently amended) A base station controller according to claim 50, wherein: the network includes a plurality of base stations;

the base station controller further comprises a transmitter that is adapted to transmit a message to the plurality of base stations and the mobile station when the detector detects a call attempt to or from the mobile station, and when the receiver receives the notification, the message including a request for establishing the plurality of branches; and

the communication controller performs the communication using inter-cell diversity handover

~~characterized in that, when a mobile station is at a location where it can communicate using diversity handover, the base station controller transmits a message to a plurality of base stations upon a call attempt to or from the mobile station, wherein the mobile station communicates with the plurality of base stations, the message including a request for establishing a plurality of branches between the mobile station and the corresponding base stations.~~

53. (Currently amended) A base station for communicating with a mobile station under the control of a base station controller, comprising:

a receiver that is adapted to receive an instruction from the base station controller, the instruction being triggered by a call attempt to or from the mobile station;

an access link controller that is adapted to establish a plurality of branches between the base station and the mobile station, on the basis of the instruction received by the receiver; and

a communication controller that is adapted to commence communication with the mobile station, the communication using intra-cell diversity handover, the intra-cell diversity handover using the plurality of branches

~~characterized in that, when a mobile station is at a location where it can communicate using diversity handover, the base station establishes a plurality of branches between the base station and the mobile station according to an instruction from a base station controller upon a call attempt to or from the mobile station, wherein the mobile station and the base station communicate with each other using the plurality of branches, the plurality of branches including a main branch and at least one auxiliary branch for additional use in order that the mobile station may communicate by means of intra-cell diversity handover, thereby enabling the mobile station to commence.~~

Claims 54-99. (Cancelled)